



1600

RAW SEQUENCE LISTING DATE: 09/17/2003 PATENT APPLICATION: US/09/939,226B TIME: 15:35:37

Input Set : A:\PTO.PG.txt

Output Set: N:\CRF4\09172003\I939226B.raw

```
3 <110> APPLICANT: Euroscreen S.A.
             SAMSON, Michel
      5
              PARMENTIER, Marc
      6
             VASSART, Gilbert
      7
             LIBERT, Frederick
     9 <120> TITLE OF INVENTION: Methods for Identifying Compounds which Bind the Active CCR5
Chemokine
    10
              Receptor
    12 <130> FILE REFERENCE: 9409/2023C
                                                                 ENTERED
    14 <140> CURRENT APPLICATION NUMBER: 09/939,226B
    15 <141> CURRENT FILING DATE: 2001-08-24
    17 <150> PRIOR APPLICATION NUMBER: US 08/833,752
    18 <151> PRIOR FILING DATE: 1997-04-09
    20 <150> PRIOR APPLICATION NUMBER: US 09/626,939
    21 <151> PRIOR FILING DATE: 2000-07-27
    23 <150> PRIOR APPLICATION NUMBER: US 08/810,028
    24 <151> PRIOR FILING DATE: 1997-03-04
    26 <160> NUMBER OF SEQ ID NOS: 18
    28 <170> SOFTWARE: PatentIn version 3.1
    30 <210> SEQ ID NO: 1
    31 <211> LENGTH: 792
    32 <212> TYPE: DNA
    33 <213> ORGANISM: Homo sapiens
    35 <400> SEQUENCE: 1
    36 gaatteecee aacagageea ageteteeat etagtggaca gggaagetag cageaaacet
                                                                              60
    38 tocottoact acaaaactto attgottggo caaaaagaga gttaattoaa tgtagacato
                                                                             120
    40 tatgtaggca attaaaaacc tattgatgta taaaacagtt tgcattcatg gagggcaact
                                                                             180
    42 aaatacattc taggacttta taaaagatca ctttttattt atgcacaggg tggaacaaga
                                                                             240
    44 tggattatca agtgtcaagt ccaatctatg acatcaatta ttatacatcg gagccctgcc
                                                                             300
    46 aaaaaatcaa tgtgaagcaa atcgcagccc gcctcctgcc tccgctctac tcactggtgt
                                                                             360
                                                                             420
    48 tcatctttgg ttttgtgggc aacatgctgg tcatcctcat cctgataaac tgcaaaaggc
    50 tgaaqaqcat gactgacatc tacctgctca acctggccat ctctgacctg tttttccttc
                                                                             480
    52 ttactgtccc cttctgggct cactatgctg ccgcccagtg ggactttgga aatacaatgt
                                                                             540
    54 gtcaactctt gacagggctc tattttatag gcttcttctc tggaatcttc ttcatcatcc
                                                                             600
    56 tcctgacaat cgataggtac ctggctgtcg tccatgctgt gtttgcttta aaagccagga
                                                                             660
    58 cggtcacctt tggggtggtg acaagtgtga tcacttgggt ggtggctgtg tttgcgtctc
                                                                             720
    60 toccaggaat catotttacc agatotcaaa aagaaggtot toattacacc tgcagototo
                                                                             780
    62 attttccata ca
                                                                             792
    65 <210> SEQ ID NO: 2
    66 <211> LENGTH: 1477
    67 <212> TYPE: DNA
    68 <213> ORGANISM: Homo sapiens
    70 <220> FEATURE:
```

71 <221> NAME/KEY: misc feature

RAW SEQUENCE LISTING DATE: 09/17/2003 PATENT APPLICATION: US/09/939,226B TIME: 15:35:37

Input Set : A:\PTO.PG.txt

Output Set: N:\CRF4\09172003\I939226B.raw

```
72 <222> LOCATION: (1377)..(1377)
     73 <223> OTHER INFORMATION: Any nucleotide
    76 <220> FEATURE:
     77 <221> NAME/KEY: misc feature
     78 <222> LOCATION: (1384)..(1385)
     79 <223> OTHER INFORMATION: Any nucleotide
     82 <400> SEOUENCE: 2
                                                                               60
     83 qaattccccc aacaqaqcca aqctctccat ctagtggaca gggaagctag cagcaaacct
     85 tcccttcact acaaaacttc attgcttggc caaaaagaga gttaattcaa tgtagacatc
                                                                              120
     87 tatgtaggca attaaaaacc tattgatgta taaaacagtt tgcattcatg gagggcaact
                                                                              180
                                                                              240
     89 aaatacatto taqqacttta taaaaqatca otttttattt atgcacaggg tggaacaaga
     91 tggattatca agtgtcaagt ccaatctatg acatcaatta ttatacatcg gagccctgcc
                                                                              300
                                                                              360
     93 aaaaaatcaa tqtqaagcaa atcgcagccc gcctcctgcc tccgctctac tcactggtgt
                                                                              420
     95 tcatctttgg ttttgtgggc aacatgctgg tcatcctcat cctgataaac tgcaaaaggc
     97 tqaaqaqcat qactqacatc tacctgctca acctggccat ctctgacctg tttttccttc
                                                                              480
     99 ttactgtccc cttctgggct cactatgctg ccgcccagtg ggactttgga aatacaatgt
                                                                              540
                                                                               600
     101 gtcaactctt gacagggctc tattttatag gcttcttctc tggaatcttc ttcatcatcc
                                                                               660
     103 tcctqacaat cqataggtac ctggctgtcg tccatgctgt gtttgcttta aaagccagga
                                                                               720
     105 cqqtcacctt tqqqqtqqtq acaaqtqtqa tcacttqqqt gqtqqctqtq tttqcqtctc
     107 tcccaggaat catctttacc agatctcaaa aagaaggtct tcattacacc tgcagctctc
                                                                               780
                                                                               840
     109 attttccata cagtcagtat caattctgga agaatttcca gacattaaag atagtcatct
                                                                               900
     111 tqqqqctqqt cctqccqctq cttqtcatqq tcatctqcta ctcqqqaatc ctaaaaaactc
                                                                               960
     113 tgcttcggtg tcgaaatgag aagaagaggc acagggctgt gaggcttatc ttcaccatca
                                                                              1020
     115 tgattgttta ttttctcttc tgggctccct acaacattgt ccttctcctg aacaccttcc
                                                                              1080
     117 aggaattett tggeetgaat aattgeagta getetaacag gttggaecaa getatgeagg
                                                                              1140
     119 tgacagagac tettgggatg acquactget gcatcaaccc catcatetat gcetttgtcg
     121 gggagaagtt cagaaactac ctcttagtct tcttccaaaa gcacattgcc aaacgcttct
                                                                              1200
                                                                              1260
     123 gcaaatgctg ttctattttc cagcaagagg ctcccgagcg agcaagctca gtttacaccc
     125 gatccactgg ggagcaggaa atatctgtgg gcttgtgaca cggactcaag tgggctggtg
                                                                              1320
                                                                              1380
W--> 127 acccagtcag agttgtgcac atggcttagt tttcatacac agcctgggct gggggtnggt
     129 tggnngaggt cttttttaaa aggaagttac tgttatagag ggtctaagat tcatccattt
                                                                              1440
                                                                              1477
     131 atttggcatc tgtttaaagt agattagatc cgaattc
     134 <210> SEQ ID NO: 3
     135 <211> LENGTH: 1442
     136 <212> TYPE: DNA
     137 <213> ORGANISM: Homo sapiens
     139 <400> SEQUENCE: 3
                                                                                60
     140 gaattcccc aacagagcca agctctccat ctagtggaca gggaagctag cagcaaacct
                                                                               120
     142 tcccttcact acaaaacttc attgcttggc caaaaagaga gttaattcaa tgtagacatc
     144 tatqtaqqca attaaaaacc tattqatqta taaaacagtt tgcattcatg gagggcaact
                                                                               180
                                                                               240
     146 aaatacattc taggacttta taaaagatca ctttttattt atgcacaggg tggaacaaga
     148 tggattatca agtgtcaagt ccaatctatg acatcaatta ttatacatcg gagccctgcc
                                                                               300
                                                                               360
     150 aaaaaatcaa tgtgaagcaa atcgcagccc gcctcctgcc tccgctctac tcactggtgt
     152 tcatctttgg ttttgtgggc aacatgctgg tcatcctcat cctgataaac tgcaaaaggc
                                                                               420
                                                                               480
     154 tgaagagcat gactgacatc tacctgctca acctggccat ctctgacctg tttttccttc
                                                                               540
     156 ttactqtccc cttctqqqct cactatqctq ccqcccaqtq qqactttqqa aatacaatqt
     158 gtcaactctt gacagggctc tattttatag gcttcttctc tggaatcttc ttcatcatcc
                                                                               600
                                                                               660
     160 tectgaeaat egataggtae etggetgteg tecatgetgt gtttgettta aaageeagga
     162 cggtcacctt tggggtggtg acaagtgtga tcacttgggt ggtggctgtg tttgcgtctc
                                                                               720
```

RAW SEQUENCE LISTING DATE: 09/17/2003 PATENT APPLICATION: US/09/939,226B TIME: 15:35:37

Input Set : A:\PTO.PG.txt

Output Set: N:\CRF4\09172003\I939226B.raw

```
780
164 tcccaggaat catctttacc agatctcaaa aagaaggtct tcattacacc tgcagctctc
                                                                          840
166 attttccata cattaaagat aqtcatcttq qqqctqqtcc tqccqctqct tqtcatqqtc
168 atctgctact cgggaatcct aaaaactctg cttcggtgtc gaaatgagaa gaagaggcac
                                                                          900
170 agggctgtga ggcttatctt caccatcatg attgtttatt ttctcttctg ggctccctac
                                                                          960
172 aacattgtcc ttctcctgaa caccttccag gaattctttg gcctgaataa ttgcagtagc
                                                                         1020
174 tctaacaggt tggaccaagc tatgcaggtg acagagactc ttgggatgac gcactgctgc
                                                                         1080
176 atcaacccca tcatctatgc ctttgtcggg gagaagttca gaaactacct cttagtcttc
178 ttccaaaaqc acattqccaa acqcttctqc aaatqctqtt ctattttcca gcaagaggct
                                                                         1200
180 cccgagcgag caagctcagt ttacacccga tccactgggg agcaggaaat atctgtgggc
                                                                         1260
182 ttqtqacacq gactcaaqtq gqctqgtqac ccaqtcagaq ttqtqcacat gqcttaqttt
                                                                         1320
184 tcatacacag cctgggctgg gggtggttgg gaggtctttt ttaaaaggaa gttactgtta
                                                                         1380
186 tagagggtct aagattcatc catttatttg gcatctgttt aaagtagatt agatccgaat
                                                                         1440
                                                                         1442
188 tc
191 <210> SEQ ID NO: 4
192 <211> LENGTH: 184
193 <212> TYPE: PRT
194 <213> ORGANISM: Homo sapiens
196 <400> SEQUENCE: 4
198 Met Asp Tyr Gln Val Ser Ser Pro Ile Tyr Asp Ile Asn Tyr Tyr Thr
                                        10
202 Ser Glu Pro Cys Gln Lys Ile Asn Val Lys Gln Ile Ala Ala Arg Leu
                                    25
203
                20
206 Leu Pro Pro Leu Tyr Ser Leu Val Phe Ile Phe Gly Phe Val Gly Asn
207
210 Met Leu Val Ile Leu Ile Leu Ile Asn Cys Lys Arg Leu Lys Ser Met
211
                            55
214 Thr Asp Ile Tyr Leu Leu Asn Leu Ala Ile Ser Asp Leu Phe Phe Leu
                        70
218 Leu Thr Val Pro Phe Trp Ala His Tyr Ala Ala Ala Gln Trp Asp Phe
                    85
                                        90
222 Gly Asn Thr Met Cys Gln Leu Leu Thr Gly Leu Tyr Phe Ile Gly Phe
223
                100
                                    105
226 Phe Ser Gly Ile Phe Phe Ile Ile Leu Leu Thr Ile Asp Arg Tyr Leu
                                                    125
            115
                                120
230 Ala Val Val His Ala Val Phe Ala Leu Lys Ala Arg Thr Val Thr Phe
                            135
234 Gly Val Val Thr Ser Val Ile Thr Trp Val Val Ala Val Phe Ala Ser
                        150
                                            155
238 Leu Pro Gly Ile Ile Phe Thr Arg Ser Gln Lys Glu Gly Leu His Tyr
                    165
                                        170
239
242 Thr Cys Ser Ser His Phe Pro Tyr
                180
246 <210> SEQ ID NO: 5
247 <211> LENGTH: 352
248 <212> TYPE: PRT
249 <213> ORGANISM: Homo sapiens
251 <400> SEQUENCE: 5
253 Met Asp Tyr Gln Val Ser Ser Pro Ile Tyr Asp Ile Asn Tyr Tyr Thr
254 1
                                        10
```

RAW SEQUENCE LISTING DATE: 09/17/2003
PATENT APPLICATION: US/09/939,226B TIME: 15:35:37

Input Set : A:\PTO.PG.txt

Output Set: N:\CRF4\09172003\I939226B.raw

```
257 Ser Glu Pro Cys Gln Lys Ile Asn Val Lys Gln Ile Ala Ala Arg Leu
                                    25
261 Leu Pro Pro Leu Tyr Ser Leu Val Phe Ile Phe Gly Phe Val Gly Asn
                                40
265 Met Leu Val Ile Leu Ile Leu Ile Asn Cys Lys Arg Leu Lys Ser Met
                            55
269 Thr Asp Ile Tyr Leu Leu Asn Leu Ala Ile Ser Asp Leu Phe Phe Leu
273 Leu Thr Val Pro Phe Trp Ala His Tyr Ala Ala Ala Gln Trp Asp Phe
274 -
277 Gly Asn Thr Met Cys Gln Leu Leu Thr Gly Leu Tyr Phe Ile Gly Phe
                100
                                    105
281 Phe Ser Gly Ile Phe Phe Ile Ile Leu Leu Thr Ile Asp Arg Tyr Leu
     115
                               120
285 Ala Val Val His Ala Val Phe Ala Leu Lys Ala Arg Thr Val Thr Phe
                            135
289 Gly Val Val Thr Ser Val Ile Thr Trp Val Val Ala Val Phe Ala Ser
                       150
                                           155
293 Leu Pro Gly Ile Ile Phe Thr Arg Ser Gln Lys Glu Gly Leu His Tyr
                   165
                                       170
297 Thr Cys Ser Ser His Phe Pro Tyr Ser Gln Tyr Gln Phe Trp Lys Asn
                                   185
301 Phe Gln Thr Leu Lys Ile Val Ile Leu Gly Leu Val Leu Pro Leu Leu
                                200
305 Val Met Val Ile Cys Tyr Ser Gly Ile Leu Lys Thr Leu Leu Arg Cys
                            215
309 Arg Asn Glu Lys Lys Arg His Arg Ala Val Arg Leu Ile Phe Thr Ile
                        230
                                           235
313 Met Ile Val Tyr Phe Leu Phe Trp Ala Pro Tyr Asn Ile Val Leu Leu
                    245
                                        250
317 Leu Asn Thr Phe Gln Glu Phe Phe Gly Leu Asn Asn Cys Ser Ser Ser
318
               260
                                    265
321 Asn Arg Leu Asp Gln Ala Met Gln Val Thr Glu Thr Leu Gly Met Thr
           275
                               280
325 His Cys Cys Ile Asn Pro Ile Ile Tyr Ala Phe Val Gly Glu Lys Phe
                           295
329 Arg Asn Tyr Leu Leu Val Phe Phe Gln Lys His Ile Ala Lys Arg Phe
                        310
                                            315
333 Cys Lys Cys Cys Ser Ile Phe Gln Gln Glu Ala Pro Glu Arg Ala Ser
                                        330
337 Ser Val Tyr Thr Arg Ser Thr Gly Glu Gln Glu Ile Ser Val Gly Leu
338
                                    345
               340
341 <210> SEQ ID NO: 6
342 <211> LENGTH: 215
343 <212> TYPE: PRT
344 <213> ORGANISM: Homo sapiens
346 <400> SEQUENCE: 6
348 Met Asp Tyr Gln Val Ser Ser Pro Ile Tyr Asp Ile Asn Tyr Tyr Thr
349 1
```

RAW SEQUENCE LISTING DATE: 09/17/2003
PATENT APPLICATION: US/09/939,226B TIME: 15:35:37

Input Set : A:\PTO.PG.txt

Output Set: N:\CRF4\09172003\1939226B.raw

```
352 Ser Glu Pro Cys Gln Lys Ile Asn Val Lys Gln Ile Ala Ala Arg Leu
356 Leu Pro Pro Leu Tyr Ser Leu Val Phe Ile Phe Gly Phe Val Gly Asn
                                40
360 Met Leu Val Ile Leu Ile Leu Ile Asn Cys Lys Arg Leu Lys Ser Met
364 Thr Asp Ile Tyr Leu Leu Asn Leu Ala Ile Ser Asp Leu Phe Phe Leu
368 Leu Thr Val Pro Phe Trp Ala His Tyr Ala Ala Ala Gln Trp Asp Phe
                                      90
                                  ,
372 Gly Asn Thr Met Cys Gln Leu Leu Thr Gly Leu Tyr Phe Ile Gly Phe
                                    105
376 Phe Ser Gly Ile Phe Phe Ile Ile Leu Leu Thr Ile Asp Arg Tyr Leu
           115
                                120
380 Ala Val Val His Ala Val Phe Ala Leu Lys Ala Arg Thr Val Thr Phe
       130
                            135
384 Gly Val Val Thr Ser Val Ile Thr Trp Val Val Ala Val Phe Ala Ser
                                            155
                        150
388 Leu Pro Gly Ile Ile Phe Thr Arg Ser Gln Lys Glu Gly Leu His Tyr
                                        170
                    165
392 Thr Cys Ser Ser His Phe Pro Tyr Ile Lys Asp Ser His Leu Gly Ala
                                    185
396 Gly Pro Ala Ala Ala Cys His Gly His Leu Leu Leu Gly Asn Pro Lys
                                200
397
           195
400 Asn Ser Ala Ser Val Ser Lys
401
       210
                            215
404 <210> SEQ ID NO: 7
405 <211> LENGTH: 360
406 <212> TYPE: PRT
407 <213> ORGANISM: Homo sapiens
409 <220> FEATURE:
410 <221> NAME/KEY: MISC FEATURE
411 <222> LOCATION: (325)..(327)
412 <223> OTHER INFORMATION: Xaa = any amino acid
415 <400> SEOUENCE: 7
417 Met Leu Ser Thr Ser Arg Ser Arg Phe Ile Arg Asn Thr Asn Glu Ser
418 1
421 Gly Glu Glu Val Thr Thr Phe Phe Asp Tyr Asp Tyr Gly Ala Pro Cys
425 His Lys Phe Asp Val Lys Gln Ile Gly Ala Gln Leu Leu Pro Pro Leu
429 Tyr Ser Leu Val Phe Ile Phe Gly Phe Val Gly Asn Met Leu Val Val
433 Leu Ile Leu Ile Asn Cys Lys Lys Leu Lys Cys Leu Thr Asp Ile Tyr
                        70
437 Leu Leu Asn Leu Ala Ile Ser Asp Leu Leu Phe Ile Ile Thr Leu Pro
                   85
441 Leu Trp Ala His Ser Ala Ala Asn Glu Trp Val Phe Gly Asn Ala Met
                                    105
442
```

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 09/17/2003 PATENT APPLICATION: US/09/939,226B TIME: 15:35:38

Input Set : A:\PTO.PG.txt

Output Set: N:\CRF4\09172003\I939226B.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:2; N Pos. 1377,1384,1385 Seq#:7; Xaa Pos. 325,326,327

Seq#:8; Xaa Pos. 231,232,233,333,334,335 Seq#:10; Xaa Pos. 145,146,147,321,322,323

DATE: 09/17/2003 VERIFICATION SUMMARY PATENT APPLICATION: US/09/939,226B TIME: 15:35:38

Input Set : A:\PTO.PG.txt

Output Set: N:\CRF4\09172003\I939226B.raw

L:127 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:1320 M:341 Repeated in SeqNo=2 L:497 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:320

L:584 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:224

M:341 Repeated in SeqNo=8

L:774 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:144

M:341 Repeated in SeqNo=10

L:888 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:14
L:904 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:15
L:919 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:16
L:934 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:17